



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,170	12/19/2005	Yongsen Chai	68016.010100	1201
32361	7590	08/22/2006	EXAMINER	
GREENBERG TRAURIG, LLP MET LIFE BUILDING 200 PARK AVENUE NEW YORK, NY 10166			CHOW, CHARLES CHIANG	
			ART UNIT	PAPER NUMBER
			2618	

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/540,170

Applicant(s)

CHAI ET AL.

Examiner

Charles Chow

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **Detailed Action**

#### **Drawings**

1. The drawings are objected to because there is no reference number for the drawings being labeled in each of the drawing received 6/17/2005, such as "Fig. 1". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.

Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### **Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2618

2. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In line 3 of **claim 1**, the word "etc." renders the claim(s) indefinite because the claim include elements, "etc.", which is not specifying the disclosure, thereby rendering the scope of the claim unascertainable. See MPEP § 2173.05(d).

The dependent **claims 2-13** are also rejected due to the rejected independent claim 1 above.

#### **Claim Objection**

3. Claims 3-4 are objected to because of the following informalities:

For claims 3-4, at the end of line 2, the ";" is improper, due to the claim needs to be ended with a period ".". Appropriate correction is required.

#### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hess et al. (US 2002/0065,104 A1) in view of Callaghan et al. (US 6,058,304), and further in view of Yamazaki et al. (US 2002/0140,076 A1) and Liu et al. (US 6,671,497 B2).

**For Claim 1**, Hess et al. [Hess] teaches a pen-type mobile telephone [Fig. 1-3] comprising housing [ pen shaped exterior in Fig. 1], the display [5], the button [9], the telephone receiver [32],

Art Unit: 2618

wherein, said housing [pen shaped exterior in Fig. 1] of said pen-type mobile telephone has a shape of slender rod-form;

said display (2) is in slender form and in longitudinal setting, namely the long side in up and down direction, the wide side in left and right direction [ the narrowly shaped display 5 in Fig. 1],

in said housing also included are printed circuit board [3], said circuit part is mainly divided into radio frequency module [30, 32 of circuit 3 in Fig. 2] and fundamental frequency module [ voice coding/decoding 26 & other circuitries], the widths of the two modules are also smaller than the width of the housing [ all parts are constructed in one part contains all elements, & they are inside the width of the pen shaped exterior, Fig. 1, paragraph 0034].

Hess fails to teach the card plug & receptacle 14.

Callaghan et al. [Callaghan] teaches these features, the handheld data entry unit with cellular telephony [Fig. 1A, 1B, Fig. 3, abstract] is capable of having socket or connector or smart card reader, for the data entry [col. 16, lines 64 to col. 17, line 7], for improving the data entering with the data from the portable smart card or memory device. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hess with Callaghan's socket, connector of smart card, memory device, in order to conveniently entering the data from the portable smart card or memory device.

Hess, Callaghan fail to teach said printed circuit board uses more than 6 layer printed circuit board, with a width smaller than the width of the housing.

Yamazaki et al. [Yamazaki] teaches these features, the multi-layer circuit board [abstract, Fig. 3A-3B], the number of conductive layers can be suitable selected in the first laminate & in the second laminate, paragraph 0085-0085, for the more than 6 layers printed circuit board], with very thin conductive layer 80 to 250 micro-meters [0070], for narrow

Art Unit: 2618

space implementation [0109]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hess, Callaghan with Yamazaki's multi-layer circuit board, in order to obtain more space for the pen shaped mobile telephone.

Hess teaches a speaker 6 for mobile telephone 1. Hess, Callaghan & Yamazaki fail to teach the earphone for a pen type mobile telephone.

Liu et al. [Liu] teaches the earphone for a pen type radio [13-15, Fig. 2, col. 2, lines 8-10 & col. 2, lines 43-51], in order to quietly, privately, listen to the sound from pen type radio while writing. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hess, Callaghan & Yamazaki with Liu's earphone 15, to quietly listen to the sound from pen type radio while writing.

**For claim 5**, Hess teaches a pen-type mobile telephone [1, Fig. 1-3], wherein a hang buckle [8] is installed at the top or the back of the housing [ 8 is install at the top of 1, clamped to pocket, paragraph 0035].

**For claim 11**, Hess fail to teach the built in cell. However, Callaghan teaches the wherein said pen-type mobile telephone uses built-in cell [the built-in rechargeable battery 70 in Fig. 3 for the pen shaped data entry unit [col. 8, lines 15-24], to conveniently provide the power to the unit by recharging the battery without opening the housing. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hess with Callaghan built-in rechargeable battery, in order to conveniently provide the power to the unit by recharging the battery without opening the housing.

**For claim 12**, Hess teaches the pen type mobile radio telephone in Fig. 3 which uses the built antenna 8 of the circuit board [0034].

Art Unit: 2618

4. Claims 3-4, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hess in view of Callaghan, Yamazaki & Liu, and further in view of Fujieda et al. (US 2002/0070,910 A1).

**For claims 3, 4,** Hess, Callaghan, Yamazaki & Liu above fail to teach the features, wherein the volume of said housing is less than: length 140 mm times width 35 mm times thickness 23 mm; the housing is less than length 140 mm times width 25 mm times thickness 18 mm.

However, Fujieda et al. [Fujieda] teaches these features, a mobile terminal having a housing 100, Fig. 1, which is 60-150 mm ling, 25 mm wide & 15 mm thick [0051], for a user to conveniently grasps the more mobile phone device, since they are small [0054]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hess, Callaghan, Yamazaki & Liu with Fujieda's small size mobile phone device, such that user can easily hold more mobile phones.

**For claim 7,** Hess, Callaghan, Yamazaki & Liu above fail to teach the features for this claim.

Fujieda teaches the wherein a function expansion are is set at the bottom of said printed circuit board [ the extension unit 111 of the mobile phone in Fig. 1 Fig. 4, paragraph 0052] is obviously coupled to the PCB 140 for providing additional external interface to camera, GPS, USB, IEEE 1394. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hess, Callaghan, Yamazaki & Liu with Fujieda's additional extension unit 111, in order to conveniently interface with other device.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hess in view of Callaghan, Yamazaki & Liu, and further in view of Akihiko (US 2002/0162,687 A1).

Art Unit: 2618

**For claim 6,** Hess, Callaghan, Yamazaki & Liu above fail to teach the features for this claim.

Akihiko teaches the wherein said printed circuit board is an 8 layer printed circuit board [the 8 layers circuit board for printed circuit board fabrication, paragraph 0118], to the signal delay time [0006]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hess, Callaghan, Yamazaki & Liu with Akihiko's 8 layers printed circuit board, such that the electrical signal moves faster in the printed circuit board.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hess in view of Callaghan, Yamazaki & Liu, and further in view Ojima et al. (US 4,128,889).

**For claim 13,** Hess, Callaghan, Yamazaki & Liu above fail to teach the features for this claim.

However, Ojima et al. [Ojima] teaches the wherein said button includes digit keys and function keys in oblique arrangement, with angles of inclination between 30 to 60 degrees [ the pen calculator in Fig. 1, Fig. 5, comprising number keys and function keys, having layed out in a line which is in a slant angle as shown in Fig. 5, such that the keys can be operated, depressed, rapidly with accuracy, col. 1, lines 38-49], Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hess, Callaghan, Yamazaki & Liu with Ojima's slanted number keys, functional keys, such that the key can be depressed rapidly with accuracy.

### **Claims Objection**

5. Claims 2,8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim



Art Unit: 2618

and any intervening claims. The cited prior arts in below fail to properly provide the claimed features, the socket inserted with SIM card plug & receptacle is set at the side face of the housing in claim 2.

The prior arts in below fail to provide the proper reasons to combine additional reference with Hess, Callaghan, Yamazaki, Liu & Akihiko or Fujieda for the claimed features for multiple in one socket is installed at said PCB in claim 8; for the vibrating motor installed at said PCB in claim 9; for the wherein at said printed circuit board a laser is provided at a position corresponding to a laser exit set at the bottom of the housing in claim 10.

The cited prior arts are as follows:

**Liu [2005/0167,509 A1, Fig. 3], Holz auf der Heide et al. [US 2004/0203,411 A1], Schiller et al. [US 6,577,299 B1], Biyle [US 6,901,245 B1, Fig. 1-2], Fujieda et al. [US 2002/0070,901 A1], Akihiko [US 2002/0162,687 A1], Hsu [US 2002/0158,135 A1], Jankowsky et al. [US 5,928,035], Huang [US 5,617,304], Metroka et al. [US 5,754,645], Ojima et al. [US 4,128,889], Dupraz et al. [US 2005/0024,346 A1], Ikeda et al. [US 2005/0088,349 A1], Ponce de Leon et al. [US 5,448,253], Montgomery [US 2004/0229,645 A1], Lapstun et al. [US 6,789,191 B1], Fujiwara [US 5,301,222], O'Connor et al. [US 6,188,392 B1].**

### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. US 6,104,603, Wang teaches an electronic pen calculator [Fig. 2A] with keyboard 131 & LCD display 132.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (571) 272-7889. The

Art Unit: 2618

examiner can normally be reached on 8:00am-5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles Chow *cc.*

August 10, 2006.

*Lana L. E.*  
8-18-06  
LANA LE  
PRIMARY EXAMINER